

Translation Of  
Toothbrush

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Publications to Be Considered for Evaluating the Patentability:

DE-GM 18 61 019; US 25 46 814

PATENT CLAIMS

1. Toothbrush, which has a toothbrush handle and a brush head provided with an outer edge with soft resilient massage surfaces attached to the brush head, characterized by that the massage surfaces (2) form a border frame, which consists of several massage cams (8) mutually moving in a longitudinal sequence and which is mounted in the outer edge of brush top (3).
2. Toothbrush conforming to Claim 1, characterized by that the toothbrush handle (1) with the massage cams (8) consists of a one piece soft resilient industrial material and is provided with reinforcements (7).

The discovery deals with a toothbrush, which has a toothbrush handle and a brush top provided with an outer edge, with soft resilient massage surfaces attached to the brush head.

In a known toothbrush of this type conforming to DE-GM 18 61 019, a lateral screen is attached to the brush head, which should prevent injury to the gums from the bristles while brushing the teeth as well as subsequent bleeding of the gums. The edge of the lateral screen should thereby come into contact with the gums instead of the bristles and simultaneously massage the gums while cleaning the teeth. Thus, the massage surfaces of every toothbrush are effective each and every time even though the bristles are effective.

However, this is advantageous, since teeth are cleaned as a rule with dentifrices, which contain sharp additives for better cleaning the teeth, and, therefore, these dentifrices should not be rubbed into the gums, as happens, however, with such a toothbrush.

This could be avoided only when the use of a dentifrice would be completely relinquished, whereby, however, adequate cleaning of the teeth would no longer be guaranteed. Moreover, it is such that the lateral screen with its massage surfaces - should these take effect at all - must be built relatively high, which in return has the result that the bristles, which then scarcely

project any more, cannot penetrate deeply enough into the intermediate spaces between the teeth. - Thus, one function limits the other.

It is also unsatisfactory with every toothbrush that cleaning the brushes is hindered or made difficult by the massage surfaces or the lateral screen bearing them, which naturally counteracts satisfactory oral hygiene.

The discovery now applies here. The task of the discovery is to design a toothbrush of the type mentioned at the beginning so that the bristles and massage surfaces can act independently of one another, that is, both an intense and hygienically satisfactory cleaning of the teeth and also careful massaging of the gums are possible.

This task is accomplished according to the discovery by that the massage surfaces form a border frame consisting of several massage cams mutually moving in a longitudinal sequence and mounted in the outer edge of the brush head.

With the toothbrush conforming to the discovery, the teeth can be intensively cleaned at first in the conventional manner using a dentifrice. The exposed bristles or the entire brush head is easily rinsed and the massage surfaces are used in a rotated position without the bristles or the dentifrice attacking the gums. Thus, the toothbrush conforming to the discovery serves two functions, whereby these are not fulfilled simultaneously in mutual restriction but are fulfilled independently of one another without limitation.

In another form of the thinking of the discovery, the toothbrush handle with massage cams consists of one piece made out of soft resilient industrial materials and is provided with reinforcements.

This form of execution possesses special technical production advantages.

Examples of execution are represented in the drawing and are subsequently described in more detail. Shown are:

Figure 1 - the toothbrush with its brush head in a top plan,

Figure 2 - the toothbrush in a lateral view,

Figures 3 and 4 - cuts conforming to lines a,a and b,b.

The toothbrush conforming to Figures 1 and 2 has a toothbrush handle 1 and a brush head 3. Pairs of bristles 4 are mounted in brush head 3.

In the one execution example the entire body of the toothbrush consists of an appropriate material for massage surface 2, thus, one which is relatively soft and flexible. In such a case a reinforcement 7 is used, which extends over the entire length of the toothbrush, namely over the toothbrush handle 1 and brush head 3, i. e. its interior. A cut of this is seen in Figure 3. Metal inserts are provided as reinforcements.

Figure 4 shows another execution example, in which the outer edge of the brush head 3 is furnished with a groove in which the massage surface 2 introduced to the sides clicks into position, squeezes in or sticks in. The massage surface 2 is provided with massage cams 8, which consist in this case of two outer series and an inside staggered series.

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